

# **Hamilton County Water & Wastewater Treatment Authority (WWTA)**

## **Inspection Notification and Typical Details for Simplex Grinder Station Installations**

June 15, 2006

C:\Documents and Settings\AmberT\Desktop\Grinder Inspection Handout.doc

# INSPECTION NOTIFICATION

## 1<sup>st</sup> Inspection from WWTa – Call 423-209-7842

After tank is set and discharge line is installed, prior to covering.

## 2<sup>nd</sup> Inspection from WWTa – Call 423-209-7842

After control panel and pump is completely wired. The contractor's plumber and electrician need to be present when the inspection is performed.

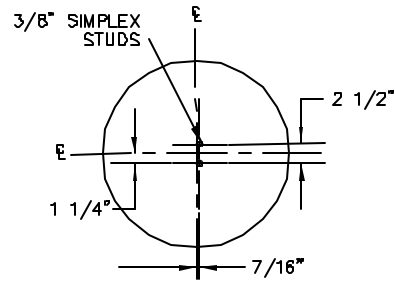
## 3<sup>rd</sup> Inspection from Hamilton County Building Inspection – Call 423-209-7860

After disconnect has been set and power has been supplied to control panel.

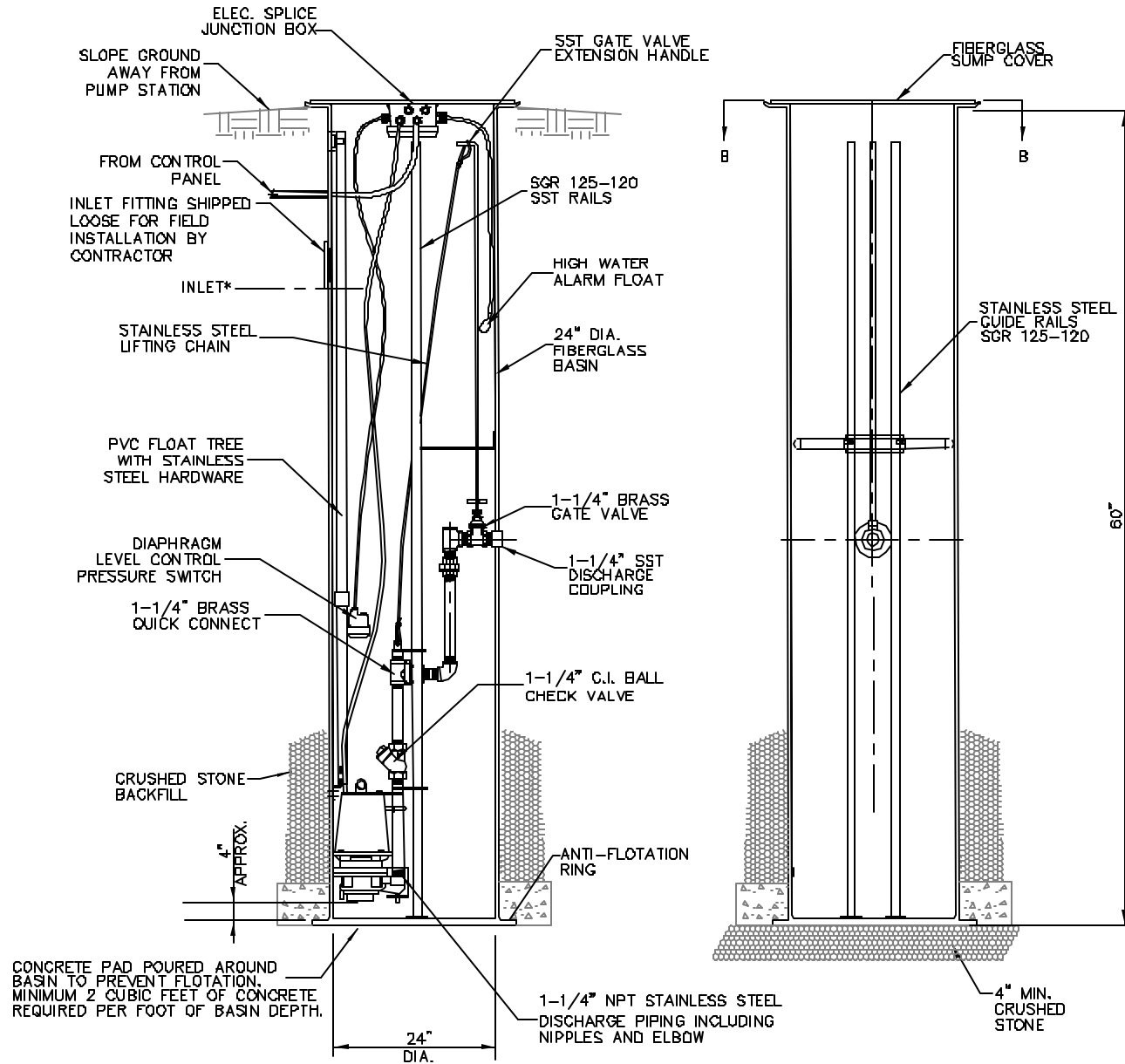
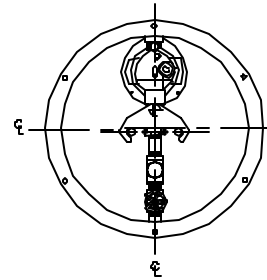
## **Final Inspection and Approval is from WWTa**

June 15, 2006

C:\Documents and Settings\AmberT\Desktop\Grinder Inspection Handout.doc



TOP VIEW



\* INLET TO BE MAXIMUM OF 24" FROM GRADE.

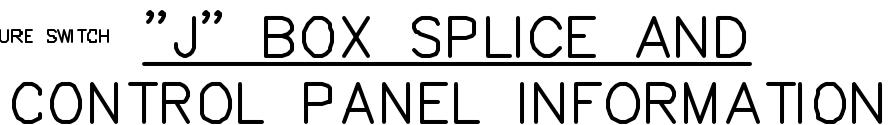
# SIMPLEX GRINDER SEWAGE PUMP STATION

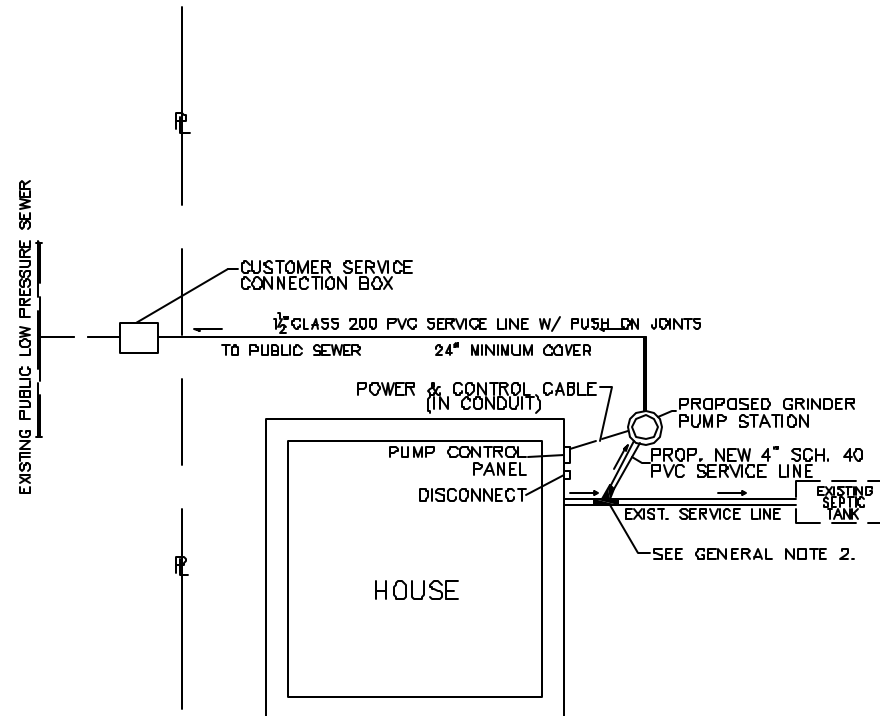
HAMILTON COUNTY WATER & WASTEWATER TREATMENT AUTHORITY

SD-29

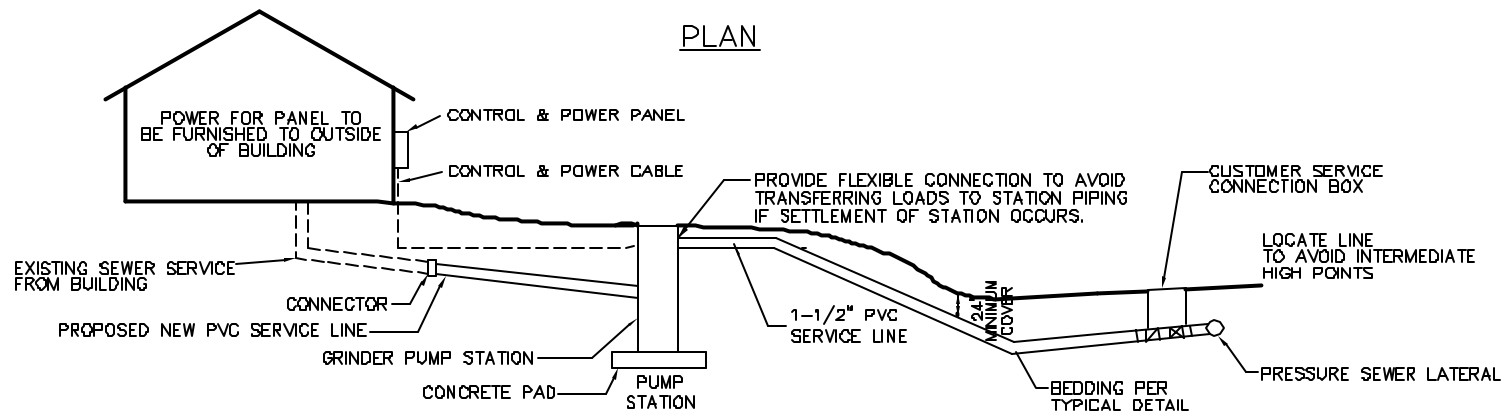
REVISED 06/15/06

1. GRINDER PUMP WIRE, DIAPHRAGM PRESSURE SWITCH WIRE, AND FLOAT SWITCH WIRE WILL GO TO THE "J" BOX ON THE FIBERGLASS COVER AND SPLICE BEFORE GOING TO THE CONTROL PANEL.
2. IF THE WIRE FOR THE FLOAT ALARM AND DIAPHRAGM PRESSURE SWITCH ARE LONG ENOUGH TO GO TO THE "J" BOX AND TO THE CONTROL PANEL, IT WILL NOT BE NECESSARY TO SPLICE THEM.
3. DIAPHRAGM PRESSURE SWITCH HAS A 1/8" VENT TUBE WITH THE TWO CONTROL WIRES. BOTH THE TUBE AND THE WIRES MUST BE SPLICED AND TIED TO THE CONTROL PANEL.
4. LAY THE "J" BOX COVER ON THE GROUND ABOUT 1' FROM THE TANK. THEN CUT WIRES TO BE SPLICED.
5. ALL CONNECTIONS FROM THE PUMP AND SWITCHES TO THE "J" BOX AND CONTROL PANEL SHALL COMPLY WITH HAMILTON COUNTY BUILDING INSPECTION, NEC, AND LOCAL CODES.
6. INSTALLATION REQUIRES ELECTRICAL PERMIT AND TAP-ON PERMIT.
7. FINAL INSPECTION TO BE PERFORMED BY WWTa (423-209-7842).
8. MUST RUN 4 CONDUCTOR CABLE FROM SERVICE PANEL TO DISCONNECT.





PLAN



PROFILE

# GRINDER PUMP SERVICE INSTALLATION

HAMILTON COUNTY WATER & WASTEWATER TREATMENT AUTHORITY

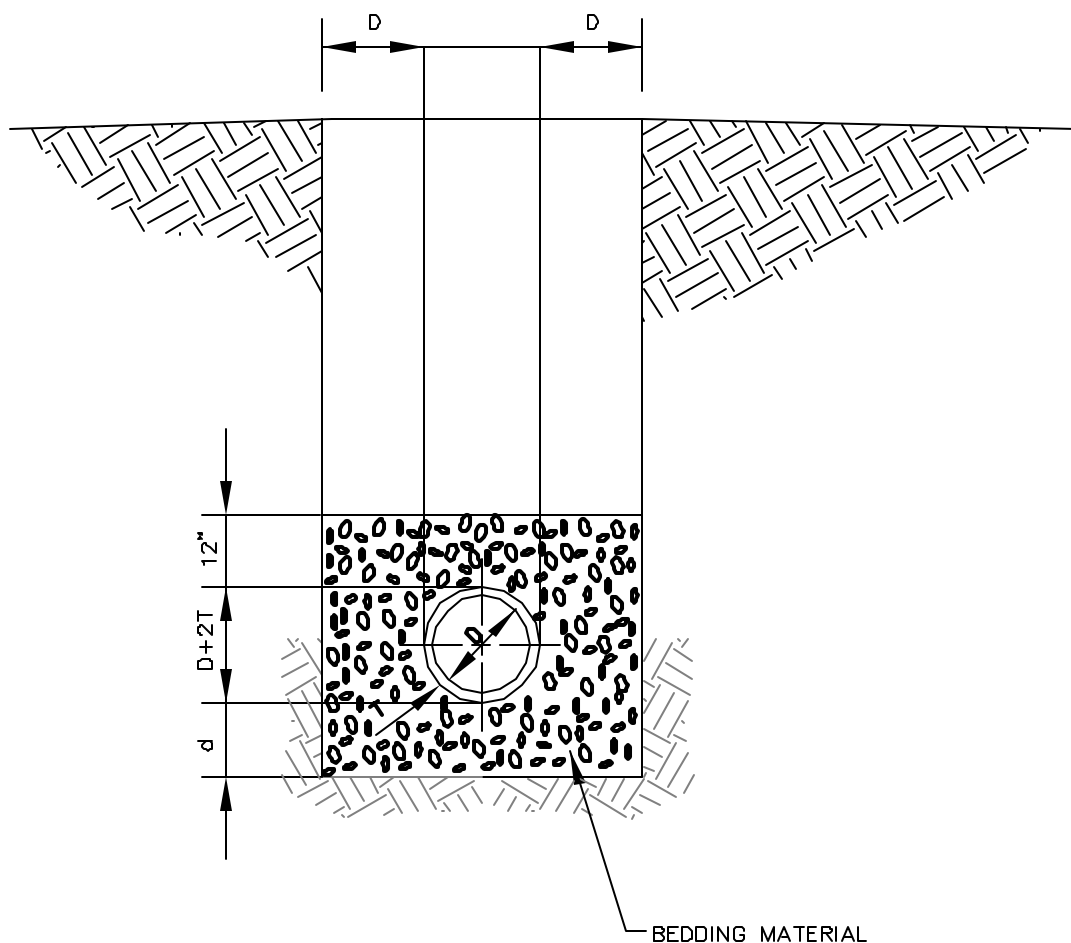
## GENERAL NOTES:

1. INSTALL CONTROL PANEL ON SIDE OF HOUSE IN VIEW OF GRINDER PUMP STATION. INSTALL WITH ELECTRICAL DISCONNECT AND RUN DEDICATED 220 VOLT LINE FROM MAIN BREAKER BOX TO DISCONNECT. INSTALLATION REQUIRES LICENSED ELECTRICIAN AND ELECTRICAL PERMIT.
2. ALTHOUGH NOT RECOMMENDED, IF APPROVED BY WASTEWATER SUPERINTENDANT, HOMEOWNER MAY LEAVE SEPTIC TANK IN SERVICE FOR OVERFLOW DURING POWER OUTAGE OF GRINDER PUMP IN ACCORDANCE WITH WWTa RULES. IF SEPTIC TANK IS ABANDONED, IT SHALL BE PUMPED CLEAN, FILLED WITH CRUSHED STONE AND DISCONNECTED.
3. INSTALLATION BY A PLUMBER OR CONTRACTOR APPROVED BY THE WWTa.
4. LOCATION OF GRINDER PUMP AND CONTROL PANEL TO BE APPROVED BY THE WWTa.
5. PLUMBER SHALL WARRANTY ALL INSTALLATION WORK FOR ONE (1) YEAR AFTER FINAL INSPECTION.

## PLUMBING NOTES:

1. INSTALLATION MUST COMPLY, IN GENERAL, WITH THE STANDARD PLUMBING CODE PUBLISHED BY THE SOUTHERN BUILDING CODE CONGRESS INTERNATIONAL, LATEST REVISION, AND WWTa REQUIREMENTS.
2. GRINDER PUMP SYSTEM SHALL BE PURCHASED FROM OR APPROVED BY THE WWTa.
3. PUMP STATION LOCATION MAY BE RECOMMENDED BY THE HOMEOWNER, BUT FINAL APPROVAL BY THE WWTa.
4. PUMP AND BASIN SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURE'S PRINTED INSTALLATION MANUAL.
5. GRAVITY SEWER LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURES PRINTED INSTRUCTION MANUAL.
6. PUMP DISCHARGE SERVICE LINES SHALL BE 1 1/2" CLASS 200 PVC WITH PUSH ON JOINTS (GASKETED OR GLUED). 45° MAXIMUM ON FITTINGS (NO 90° FITTINGS).
7. DISCHARGE SERVICE LINES SHALL BE INSTALLED WITH A MINIMUM COVER OF 24" AND VALVES SHALL BE INSTALLED NO MORE THAN 18" BELOW GRADE.
8. GRINDER PUMP SYSTEM AND DISCHARGE SERVICE LINES SHALL BE TESTED AS FOLLOWS;
  - a) PRIOR TO BACKFILLING;
    1. CLOSE ISOLATION BALL VALVE AT PROPERTY LINE.
    2. FILL PUMP BASIN WITH WATER.
    3. TURN PUMP ON AND OBSERVE OPERATIONS.
    4. OBSERVE DISCHARGE SERVICE LINES FOR LEAKS.
  - b) AFTER BACKFILLING;
    1. CLOSE ISOLATION BALL VALVE AT PROPERTY LINE.
    2. REMOVE CHECK VALVE AT PROPERTY AND INSTALL PRESSURE GAUGE APPARATUS WITH FLUSHING VALVE.
    3. FILL PUMP BASIN AND DISCHARGE LINE WITH WATER.
    4. TURN ON GRINDER PUMP TO PRESSURIZE LINE. CLOSE PUMP STATION ISOLATION VALVE AND TURN PUMP OFF.
    5. OBSERVE PRESSURE GAUGE FOR SIGNS OF LEAKAGE.
9. CUSTOMER SERVICE CONNECTION BOX NO CLOSER THAN 4' FROM DRIVEWAYS.
10. PLUMBING INSPECTION REQUIRED BY THE WWTa PRIOR TO PLACING SYSTEM IN SERVICE.
11. SERVICE CONNECTION BOX MUST BE A MINIMUM OF 4' FROM DRIVEWAY.
12. SERVICE VALVES MAY NOT BE MORE THAN 18" DEEP.
13. LOW PRESSURE FORCE MAIN MUST BE SLEEVED IN 4" SCHEDULE 40 PVC WHEN INSTALLED UNDER DRIVEWAYS.

# GRINDER PUMP SERVICE INSTALLATION NOTES



D	d
< 4"	4"
4-6"	6"
8"	6"
10"	8"
12"	8"
15"	8"
18"	8"
21"	10"
24"	10"

TRENCH BEDDING (CLASS "1", ASTM D 2321)

MATERIAL SHALL BE ANGULAR 1/4 TO 1/2 IN. GRADED STONE  
 PAYMENT FOR THE BEDDING SHALL BE INCLUDED IN THE UNIT  
 PRICE BID PER LINEAR FOOT PIPE FOR VARIOUS TYPES, SIZES,  
 AND DEPTHS LISTED IN THE BID SCHEDULE.

## TYPICAL TRENCH AND BEDDING FOR GRAVITY AND FORCE MAIN

HAMILTON COUNTY WATER & WASTEWATER TREATMENT AUTHORITY

SD-13

REVISED 03/29/05

## **DIRECTIONS TO EAST RIDGE WWTa OFFICE**

**From I-75 South** – From the East Ridge exit turn right onto Ringgold Rd. and go approx. 0.6 mile to the 2<sup>nd</sup> red light. Turn right onto Spring Creek Rd. Go approx. 0.3 mile to Graston Ave. and turn left. Go approx. 0.2 mile and turn right on Yale St. Go through the gate and follow the signs.

**Moore Rd. Exit** – From the Moore Rd. exit go to the 3<sup>rd</sup> red light (approx. 1 mile). Turn right onto Spring Creek Rd. Go approx. 0.5 mile to Graston Ave. and turn right. Go approx. 2 miles and turn on Yale St. Go through the gate and follow the signs.

**PLEASE CALL 315-3843 OR 315-3835 TO MAKE SURE SOMEONE WILL BE THERE TO GIVE OUT THE GRINDER PUMP.**

